

## AN ALGOLOGICAL PROPHECY FULFILLED.

F. S. COLLINS.

I HAVE lately taken considerable interest in those forms of algae that show special adaptations to particular conditions, epi- or endophytic, epi- or endozoic habitat, and the like, of which many are known, both fresh water and marine, and doubtless many more will be discovered. One for which I have been looking is *Dermatophyton radians* Peter, a green alga that forms a firm crust on the backs of turtles, penetrating into the crevices; it was first found in Europe, and has once been found in this country. For the last two or three years I have waylaid turtles at many ponds, but have found no trace of the alga; the shells have been bare and smooth. But one day in June last, in Tewksbury, Massachusetts, I saw a turtle near the edge of a pond, with a distinct green growth on the shell. I proceeded towards him with the utmost caution, as turtles are not easily taken unaware, but soon a sense, other than sight, notified me that he was not likely to escape; he was no ways superior in appearance to other mud turtles, and yet it would hardly be incorrect to speak of him as unapproachable. I succeeded in scraping off some of the growth, which as I had supposed was a green alga, but it certainly was not the *Dermatophyton*; the substance was much softer. Only when I reached home and examined it with the microscope did I recognize it; it was *Chaetomorpha Chelonum*, the plant that I described in RHODORA, Vol. IX, p. 199, from material sent me from Michigan, where Dr. Hankinson found it on two species of turtle. Now in connection with my description I referred to what Lagerheim said, when describing *C. herbipolensis*, the first, and until my note the only certain fresh water species of this genus; that the desmids that he had studied on specimens of aquatic phanerogams, collected long ago by B. D. Greene, indicated that the algal flora of Massachusetts was of almost a tropical character, and that fresh water species of *Chaetomorpha* were to be expected here. The characterization of Massachusetts as subtropical strikes one rather oddly, but here is this second station for *C. Chelonum*, the same Round Pond where Greene collected the plants that Lagerheim examined in the herbarium in Sweden, and from which he published his very valuable list of desmids; I had been exploring many ponds all over New Eng-



land, but only at this one spot had I found the *Chaetomorpha*; there could hardly be a more perfect fulfillment of what seemed an improbable prophecy.

MALDEN, MASSACHUSETTS.

## RUPTURE OF THE EXOPERIDIUM IN CALOSTOMA RAVENELII.

HARLEY HARRIS BARTLETT.

THE most interesting find on a recent collecting trip to Falls Church, Virginia, in company with Dr. Heinrich Hasselbring, was a colony of *Calostoma Ravenelii* (Berk.) Masee. There were between thirty and forty plants, in all stages of development, growing up through a clump of moss in moderately damp, chestnut woods. The long coralline bases of the fungus were imbedded in loose, sandy soil underneath the moss. Most of the peridia had pushed entirely through the moss, but a few had reached maturity under ground.

The method of rupture of the exoperidium in *Calostoma Ravenelii* seems never to have been satisfactorily described, although the species is found not uncommonly near Washington, D. C., and elsewhere. The following quotations from recent treatments of *Calostoma* (*Mitremyces*), bear upon this point:—

“ . . . exoperidium remaining attached to the ochraceous endoperidium in the form of irregular warts or scales.”

“ Although Morgan considers the species [*C. Ravenelii*] synonymous with *M. lutescens*, it appears to differ in . . . the peculiar mode of rupture of its exoperidium, which remains attached in scale-like fragments all over the surface of the endoperidium, the Herbarium Curtis specimens agreeing in this respect with those of Berkeley, as figured by Masee, . . . ”

(Burnap, Bot. Gaz. xxiii (1897) p. 190.)

“ Professor Beardsley writes me: ‘ *Mitremyces Ravenelii*, as I have found it in a dozen stations at Asheville, has no gelatinous coat, but is always covered with a scurfy coat which breaks away from the base first, the last piece separating like a cap from the apex.’ ”